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Columbia University
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DEPARTMENT OF ZOOLOGY

December 8, 1945

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Srbg

Dr. Ralph G. Meader
J. C. Childs Memorial
Fund for Medical Research
333 Cedar Street
New Haven, 11, Conn.

Dear Dr. Meader,

I am writing in support of the fellowship application of Mr. Joshua Lederberg. I have known him since he was an undergraduate in Columbia College and have seen him develop personally through his experience with the V12 Naval Unit both at the College and in Medical School.

While at Columbia he made a remarkable impression upon his teachers, both in the Sciences and in the Humanities. Before he graduated he had completed, with distinction, a number of graduate courses and in my opinion was much better than most of our graduate students in Zoology.

At Medical School his improvement has continued. Possessed of a tremendous energy, he has not only done good work in his courses but has found time during the past two years to engage in some research during the evening and on weekends. This summer he began some part time work with me on biochemical mutants of the mold, Neurospora.

The progress of the work during this short time has been remarkable. He has been able to demonstrate that in some cases the adaptations which the mold undergoes are due to genic back-mutations. Some of these are especially interesting genetically because they are not at the original locus. In addition he has revealed a complicated interaction between mutant and wild type nuclei which is of the greatest interest. At least one paper on this subject should be published early in 1946. I am quite sure that no present graduate student in our department would have achieved so much in so little time.

The reason for this achievement must be attributed to a large number of qualities which Lederberg possesses. Among them are immense energy, a very fine imagination, acute judgment in the design of experiments and close acquaintance with the literature. I have tried, and think I am succeeding, to develop a proper attitude of self criticism in Lederberg. This may be his greatest weakness, although, not surprising in one so young.

The possibility that Lederberg may work with Professor E. L. Tatum at Yale during his vacation from Medical School this spring and summer is very attractive in many ways. In the first place, to engage in such an association will certainly accelerate his own development. In addition, I have every confidence that his record will be one of accomplishment.

Upon rereading what I have written I fear that it may sound like an overstatement. It simply is not. Lederberg is, in my opinion a very gifted young man with unusual achievement and promise. The Child's Fund would make no mistake in granting him a fellowship.

Sincerely yours,

Francis J. Ryan
F. J. Ryan
Assistant Professor, Zoology

FJR:SR

P.S. Since this was typed I have received your letter of Dec. 7. Since Lederberg intends to work in biochemical genetics with Dr. Tatum I cannot truthfully say that it is cancer research. He will not be working on cancer as we know it but in investigating the genetic control of cell behavior and metabolism, may, in my opinion, secure fundamental information. As I have indicated above, the fact that Lederberg

has not yet secured his MD is no measure of his training, experience or competence. He is definitely set out for research and will enter that field when he completes his medical education. Next fall he intends to associate himself with Dr. Graf of the College of Physicians & Surgeons on a project investigating the milk factor in mammary tumors. I could not certify that Lederberg will make his life's work a study of the cancer problem but this work will certainly be on basic problems.

He has recently been put in the Naval Reserve ^{on inactive duty} and, since his class has a long vacation designed to put it back on the non-accelerated schedule, he wishes to profitably use his time. Support by the Child's Fund will provide special training for a promising young man which in my opinion, may very well lead to the development of a research program that will advance our knowledge of cancer. I sincerely hope your organization will seriously consider Lederberg's special case.